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For reasons set forth below, the Applicants contend that no one of ordinary skill in the art would ever contemplate the combination of Cao and McCallister because they teach contradictory ways of achieving data network reliability. Because they are contradictory and there is no reason to combine them, their combination to reject the claims by the Examiner was improper.

The Final Rejection Basis

In rejecting the claims, the Examiner admitted that Cao does not disclose the claim 1 and claim 10 step of sending a second message from the second switch to the first switch to establish a reverse notification path. The Examiner also admitted that Cao does not disclose the claim 1 and claim 10 step of sending a third message over the reverse notification path to control protection switching by the first switch cited in the preamble of claim 1. The Examiner contends incorrectly, that McCallister discloses these steps. He cited column 9, line 47 to column 10, line 8 of McCallister as ostensibly teaching the limitations of claims 1 and 10 that he admitted are not taught by Cao.

A careful review of McCallister reveals that it does not teach limitations (b) and (c) of claims 1 and 10. Even if McCallister taught limitations (b) and (c) of claims 1 and 10, combining McCallister with Cao as the Examiner did was improper.

Rejection under §103 requires motivation or suggestion to combine references

The Examiner should know that under well-established Federal Circuit case law, to reject claims under §103 on a combination of references requires some sort of teaching, motivation or suggestion to combine the references that the Examiner relies on.¹ The teaching, motivation or suggestion to combine references, can be found in either the references themselves, or elsewhere in the prior art but it is improper for an Examiner to combine references to reject a claim if there is no such teaching, motivation or suggestion to combine them.

In the above-identified Office Action, the Examiner justified his combination of Cao and McCallister by concluding *sua sponte* (See page 4 of the Office Action.) that a "motivation" to

¹ If the Examiner wishes, the Applicants will provide citations to recent federal circuit case law, wherein the Court has held that a rejection under 103 requires a motivation, teaching or suggestion in either the references themselves or the prior art to combine references in order to find a claim obvious.

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combine these two (2) references is "to allow a first, source, node to learn about a failure in a data path and allow the source node to be able to implement protection switching."

In ostensibly finding "motivation" to combine Cao and McCallister, the Examiner wholly ignored that Cao teaches that it is preferable to have the sink router decide when to perform a protection switchover and which secondary stream to use. The Examiner didn't explain why someone would ignore Cao's teachings and instead adopt McCallister's teaching that some sort of message should be sent upstream. The Examiner's ostensible finding of a "motivation" to combine Cao and McCallister is however at odds with what each reference teaches.

Cao and McCallister contradict each other and combining them would be illogical

Cao teaches that the selection of primary and secondary paths through a data network is to be performed by the routers of the network – not by a person. Cao also teaches when a primary path fails, the selection of a secondary path through a network, i.e., the protection path switchover, should be performed by the sink router. (See paragraph 5 of CAO et al.)

Cao goes to great lengths to describe how a router can set up secondary paths through a network. In Cao, data is carried on both a primary path and a secondary path at all times so that when the primary path fails, the egress router can instantaneously select data from a secondary path.

Cao teaches that selection of a secondary path should be instantaneous. McCallister's method precludes an instantaneous switchover.

To accomplish an instantaneous selection of a secondary path, Cao teaches that there should be a plurality of paths from a source router to a sink router. These secondary paths are provisioned at and by, the source router and they each carry live data. In the event of a primary path failure, the sink router selects one of the already established paths between the source and sink routers. The selection of a redundant or secondary path is by the sink router. (See CAO et al, paragraphs 5, 6, 20 and 21.)

In particular, the first sentence of paragraph 6, Cao states that "a router...may be employed to establish one or more circuit paths among a plurality of routers." Further on in paragraph 6, Cao states that "a router...establishes a plurality of paths from a source (entry) router to a sink (destination) router.... All of the new routers between the source and sink routers operate to establish the plurality of paths." In paragraph 21, Cao states that "a router in

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accordance with the principles of the present invention employs explicit routing protocols to establish a plurality of exaltedly routed paths between source (entry) and sink (destination) routers. The sink router selects one of these explicitly routed paths as the primary path and communicates along that path)." The remaining text of CAO et al. goes on to describe how the routers disclosed in FIG. 1 of CAO et al. establish paths through the network automatically.

McCallister teaches that pathways through a network are set up manually

Unlike Cao's selection of paths by routers, McCallister teaches that paths through a network should be set up *manually*, i.e., by a person.

The Abstract of McCallister clearly and plainly states that a path across a network is specified by a human operator. This "operator directed route" or "ODR," is established *manually*, i.e., by a person, not a router as taught by Cao.

In column 7, line 6, McCallister states that the objective of the preferred embodiment is to establish a connection between end stations through the network 30.

In column 7, lines 8 – 9, McCallister states that "*the NMS 46 enables a human operator to establish a prior art PVC or SPVC.*" (Emphasis added.)

In column 7, lines 11-13, McCallister states that "[i]n the preferred embodiment...the NMS 46...[enables] a human operator to *manually provision* the ODR SPVC of the invention."² (Emphasis added.)

In column 7, lines 13-1, McCallister states that an ODR SPVC comprises at least two (2) attributes:

- (a) manually provisioned preferred or primary path for the connection and
- (b) manually provisioned rerouting restriction or scheme for rerouting the connection in the event that the preferred or primary path fails.

These and other passages of McCallister cited by the Examiner obliquely refer to a message being sent to the source node, which attempts to reroute data, but a review of McCallister in its entirety reveals that the paths over which data can be routed, are paths that are

² In the patent's Abstract, ODR SPVC is said to mean "operator directed route, soft permanent virtual circuit."

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selected by an operator and not by a router as taught by Cao. (See McCallister, column 10, line 20; column 13, lines 10-13.)

Combining contradictory Cao and McCallister references to reject the pending claims is a nonsequitor

As set forth above, McCallister is replete with teachings that a human preferably sets up paths through a network yet Cao teaches that routers should set up paths through a network. Combining two references that teach contradictory methods doesn't make sense.

Why would anyone of ordinary skill in the art combine McCallister with Cao as the Examiner has done, when the two references are at odds with each other as to how to accomplish a reliable data network? Where is there any sort of teaching, suggestion or motivation to combine these two diametrically-opposed references? The teachings of each reference show that no one of ordinary skill would ever consider combining Cao and McCallister.

The combination of McCallister with Cao by the Examiner was improper. No one of ordinary skill in the art would ever be motivated to combine McCallister with Cao. The rejection of the claims on their combination should be withdrawn.

Cao and McCallister contradict each other.

As set forth above, Cao teaches advantages to having the sink router select a protection path and when to perform a switchover, i.e., instantaneous switchover without data loss. McCallister on the other hand teaches that upon the detection of a failure node or link, some sort of message is sent upstream with a switchover being accomplished somehow by the source router. In column 10, line 2 of McCallister it states that when a link failure is detected, the functioning part of the network transmits a signal indicative of the failure to the source node. The two different methodologies of Cao and McCallister cannot be reconciled in any way that would suggest they be combined.

Even if Cao and McCallister were combined, McCallister text cited by the Examiner shows that their combination does not show or suggest the pending claim limitations.

Importantly, the Examiner cited McCallister, column 9, line 47 through column 10, line 8 as ostensibly teaching pending limitations that are missing from Cao. In fact, in the passages cited by the Examiner, McCallister states in column 10, lines 6-8 that "upon receipt of [the

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failure signal] the source node may attempt to reroute the connection along a different path." In other words, the source node of McCallister does not attempt to re-route data along a different path until *after* the source node receives a failure signal. McCallister, therefore, does not predetermine a protection path as claimed by the Applicant in independent claims 1 and 10. Stated alternatively, combining Cao and McCallister as the Examiner has done would not accomplish what is claimed in the pending claims. For this reason as well, the claim 1 and claim 10 rejections under Section 103 should be withdrawn.

The claims dependent on claim 1 are allowable

As for claims 2, 4-5, and 7-9, each of these dependent claims further narrow the scope of independent claim 1. Inasmuch as claim 1 is not invalid under Section 103 for the reasons set forth above, the dependent claims are also not invalid as well. The rejection of these claims should therefore be withdrawn.

Neither of the two (2) references show or suggest a predetermined control message that is sent from the egress router to the source router that establishes a reverse notification path. McCallister teaches the establishment of paths by an operator using a network management system. Cao on the other hand, teaches routers that establish paths through a network, but the selection of a secondary or protection path is determined by a egress router upon its determination of a failure message. In other words, McCallister does not teach sending a message from an egress router, rather it teaches an operator's intervention. Cao does not teach sending a message upstream either, but it relies upon the egress router's detection of a failure.

Claims dependent on claim 10 are allowable

As for dependent claims 11, and 13-16, each of these claims further narrow claim 10 and therefore are also allowable.

Claims 3 and 12 are allowable

As for claims 3 and 12, the Examiner rejected these under Section 103(a) as being unpatentable of Cao in view of McCallister and Aukia. The Examiner contends that it would have been obvious for one of ordinary skill in the art, when presented with the work of Aukia, to combine the use of an MPLS Reservation Protocol Message with the protection method of Cao, the motivation allegedly being the ability to share protection pathway information between network elements.

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As set forth above, obviousness requires a showing, teaching or suggestion in the references themselves or the prior art to combine them. The Examiner's ad hoc combination of three (3) different references is not supported by either the teachings of these three (3) references themselves or any other cited art. For the reasons set forth above, the combination of Cao and McCallister is baseless. Nobody of ordinary skill in the art would ever combine an automatic path selection technique of Cao with a manual path selection technique taught by McCallister. The combination of these two (2) references with Aukia is similarly unfounded and improper. Even if these references were combined, they would not show or suggest the pending claim limitations.

The Examiner's reliance upon McCallister, Cao, and Aukia is improper and the rejection of claims 3 and 12 should be withdrawn.

Claim 6 was not addressed by the Examiner

The Examiner indicated on form PTOL-326 that claims 1-16 were pending and the claims 1-16 were rejected. Claim 6 however was not discussed in the Office Action.

If claim 6 stands rejected, under the provisions of 37 C.F.R. §1.104(c), the Applicants request that the Examiner identify the reasons why the claim is rejected.

If claim 6 was not addressed in the Office Action because it has been allowed, the claim should be indicated as allowed in the next response from the Examiner.

In either case, the Applicants are entitled to know the status of claim 6 and a chance to respond to its rejection. Another Office Action is in order.

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Conclusion

For the reasons set forth above, the Applicants respectfully request that the final rejection be withdrawn and the claims be allowed to issue. Should the Examiner wish to discuss the merits of the application in any way, he is invited to contact the undersigned at his convenience at 312/609-7536.

Respectfully submitted,



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